Class 3- 36V-72V Input 2.5V/5A Active Clamp Forward; 1/16 Brick

(ACTIVE) PMP6886

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Description

The PMP6886 reference design provides 2.5V at 5A from a standard 48V telecom input with greater than 88% efficiency. This design uses the UCC2897A active clamp controller along with TI NexFET synchronous rectifiers. The low gate thresholds of the CSD16323Q3 and CSD16406Q3 allow them to be driven directly from the transformer windings. The circuit is built in an industry standard 1/16 brick footprint. Auxilliary features of this design include remote sense, output over-voltage protection, output voltage trim and primary side enable control.

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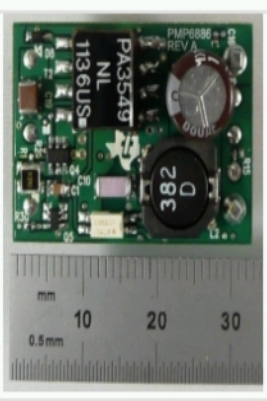

Top Side

Fully assembled board (shown above) developed for testing and performance validation only, not available for sale.

Bill of Materials (BOM)

Find the complete list of components in this reference design.

Download BOM

Parametrics

	PMP6886
Vin (Max) (V)	72
Vin (Min) (V)	36
Vout (Nom) (V)	2.5
Iout (Max) (A)	5
Output Power	12.5
Isolated/Non-Isolated	Isolated
Input Type	DC
Topology	Forward- Active Clamp Forward- Synchronous

TI Devices (3)

Order samples, get tools and find more information on the TI products in this reference design.

Part Number	Name	Product Family	Sample & Buy	Design Kits & Evaluation Modules
CSD16323Q3	N-Channel NexFET™ Power MOSFET	Power MOSFET	Sample & Buy	Not Available
CSD16406Q3	N-Channel NexFET™ Power MOSFET	Power MOSFET	Sample & Buy	Not Available
UCC2897A	Advanced Current-Mode Active Clamp PWM Controller	AC/DC and Isolated DC/DC Power Supply	Sample & Buy	View Design Kits & Evaluation Modules

CAD/CAE symbols

Part #	Package | Pins	CAD File (.bxl)	STEP Model (.stp)
CSD16323Q3	VSON-CLIP (DQG)| 8	Download	-
CSD16406Q3	VSON-CLIP (DQG)| 8	Download	-
	VSON-CLIP (DQV)| 8	Download	-
UCC2897A	TSSOP (PW) | 20	Download	Download
	VQFN (RGP) | 20	Download	-

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Step 1: Download and install the Ultra Librarian software ZIP: 62MB

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Technical Documents

User Guides (1)

Title	Abstract	Type	Size (KB)	Date	Views
PMP6886 Test Results		PDF	4332	19 Oct 2011	17

Design Files (4)

Title	Abstract	Type	Size (KB)	Date	Views
PMP6886 PCB		PDF	307	19 Oct 2011	20
PMP6886 Gerber		ZIP	3421	19 Oct 2011	14
PMP6886 BOM		PDF	31	19 Oct 2011	28
PMP6886 Schematic		PDF	86	19 Oct 2011	38

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- PMP4190
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- PMP4035
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